MUSCLE STRETCHING DEVICE AND METHOD FOR USING THE SAME

BACKGROUND OF THE INVENTION

The present invention is directed to the field of therapeutic equipment used to stretch and exercise certain muscle groups. In particular the device and method of the present invention is directed to treatment of persons who are suffering from stress related muscle problems in the neck, shoulders and upper back.

Persons who suffer from these stress related problems typically appear to walk or stand in a slumped forward position which results in short and tight chest muscles. Further, their shoulder muscles are sagging and the upper back muscles between the shoulder blades are long, atrophied and very sore. When the head is carried forward, the muscles in the upper back and lower neck are significantly strained just keeping the head erect. This medical condition is known as "anterior translation" and is the single largest cause of upper back and neck pain as well as tension headaches in the skull. Typically, these conditions result in spinal misalignment of the neck and upper back. The spinal misalignment problems usually start early in life and progress to more serious conditions such as disc problems and hump back.

In the past, one of the therapies for the aforementioned problems has been various exercises intended to stretch the muscles without the use of any device to facilitate the exercise. The device and method of the present invention is adapted to facilitate and improve upon the muscle stretching exercises which relieves the problems mentioned above.

SUMMARY OF THE INVENTION

The present invention is directed to a platform comprising device for stretching the muscles in the chest, shoulder, neck and upper back to relieve tension related muscles problems comprising a generally flat longitudinally extending area comprising a top surface and a bottom surface wherein the top surface is padded for a user's comfort, a

plurality of legs attached to the bottom surface of the platform for positioning the device at an angle to a horizontal surface and a rotating handle bar slidingly attached to the bottom of the platform and adapted to allow the user to stretch his or her muscles through sliding movement of the bar in a direction generally perpendicular to the top of the platform.

The present invention is also directed to providing a method for stretching chest, shoulder, neck and upper back muscles of a patient to relieve tension related muscle problems comprising providing a device comprising a platform comprising a generally flat longitudinally extending area comprising a top surface and a bottom surface wherein the top surface is padded for the patient's comfort, a plurality of legs attached to the bottom surface of the platform for positioning the device at an angle to a horizontal surface and a rotating handle bar slidingly attached to the bottom of the platform and adapted to allow the patient to stretch his or her muscles through sliding movement of the bar in a direction generally perpendicular to the top of the platform, positioning the patient on the platform of the device, engaging the patient in stretching exercises by setting the rotating handle bar to a position relative to the top of the platform and directing the patient to slidingly move the rotating handle bar a plurality of time to stretch out muscles.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a perspective view of an embodiment of the present invention.

Figure 2 is a front plan view of an embodiment of the present invention.

Figure 3 is a rear plan view of an embodiment of the present invention.

Figure 4 is a side plan view of an embodiment of the present invention.

Figure 5 is a side plan view of an embodiment of the present invention.

Figure 6 is a top plan view of an embodiment of the present invention.

Figure 7 is a bottom plan view of an embodiment of the present invention.

Figure 8 is a perspective view illustrating the use of an embodiment of the present invention.

Figure 9 is a bottom view of an embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

The present invention will now be described in the context of its presently preferred embodiment as illustrated in the drawings. Those of ordinary skill in the art will recognize that many obvious modifications may be made thereto with departing from the spirit or scope of the invention as set forth in the appended claims.

The exercise device 10 of the present invention comprises a platform 12 on which a user of the device will lay. The platform 12 is padded and covered with a vinyl material for the comfort of the users. A rotating handle bar 14 is slidingly connected to the bottom of the platform 12 at its top end 13. The device 10 further comprises a plurality of legs 16. The legs 16 are fixed to the bottom of platform 12 in a conventional manner near its top end 13. The legs 16 are sized to provide the proper angle to the horizontal for the stretching exercises described below.

As illustrated in Figure 7, the bottom of platform 12 is provided with a first set of elongated tracks 18. As shown in Figure 3, the rotating handle bar 14 is connected to a second set of elongated metal tracks 20. The tracks 20 are adapted to be slidingly received in tracks 18. As described below, when the user moves the bar 14, the tracks 20 will be extended in a longitudinal direction into and out of tracks 18.

A ring pin 15 on the rotating handle bar 14 allows the user to rotate the handle bar 14 to different positions with respect to the top of the platform 12. As explained below, changing the angle of the rotating handle bar 14 with respect to the platform 12 allows the user to set the difficulty level for the stretching exercises.

The method of using the device 10 will now be described. First, the user sets the rotating handle bar 14 to the position with respect to platform 12 that provides the easiest movement. This is accomplished by removing the ring pin 15, turning the bar 14 to a first mark 17, and reinserting the ring pin 15.

As partially illustrated in Figure 8, the user lies comfortably on the platform 12 on her back with her head at the top end 13 of the platform 12. She flexes her knees to the chest and positions the feet directly under her buttocks. This takes the forward lumbar curve out of her lower back, which is necessary in order to do the stretch correctly. The user then does three stretches each of which is progressively more strenuous. The stretches target the muscle groups from the outer edge of the body to progressively closer to the midline of the spine. For the easiest stretch, the user places her or his hands on outer stripes 19 on rotating handle bar 14. She extends the arms above the head and then repeats the exercise and thereby extends rotating handle bar 14 by means of the tracks 20 extending out of the tracks 18. The user then locks the elbows, slowly counts to about 60 or more, and then retracts the bar 14 into the original position.

This position – with the hands on the outer stripes 19 – stretches and tones the muscles of the chest as well as the muscles along the outer sides of the body which including the chest, trunk and arms. Next, she places her hands on middle stripes 21 and repeats the same exercise. This stretches and tones the muscle groups between the outer

edge of the body and midline of the spine including the muscle around the shoulder blades and shoulder joints. Finally, the user places both hands on inner stripe 22. This stretches the key muscle groups along the spine itself including those in the mid and upper back, the lower neck, and across the traps.

The user is able to completely stretch and tone all of the joints and muscle groups across the chest, in the shoulders and rotator cuff, the traps and upper shoulders, the lower neck, the upper and mid back, as well as the key groups between the shoulder blades in a relatively short period of time. Thus, all the key muscle groups that cause stress, back pain, neck pain, and tension headaches are stretched out. Consequently, the user's stress related symptoms will be alleviated through repetition of these exercises.

Once the user is comfortable using the device 10 of the present invention in the easiest setting, she or he can set the handle bar 14 through the adjustment of the ring pin 15 to a setting which causes more stretching by rotating bar 14 further from the top of platform 12. The increased setting puts more external rotation into the shoulder girdle which dramatically increases the stretch benefit when extending overhead. After the user is comfortable with an increase, she or he can progress to a more advanced setting by rotating the bar 14 further from the top of platform 12. This is the most challenging and therapeutic of all.

When the user has reached the point of maximum stretch and flexibility, which will be different for everyone, she or he can gain more benefit by adding resistance to the regimen described above. Resistance adds the benefits of increased muscle tone, stamina, and strength. As illustrated in Figure 9, resistance is added by attaching a stretchable band 24 between the rotating bar 14 and the bottom of the platform 12. After

the resistance is added, the same exercises as described above are repeated. More bands or stronger bands may be added to further increase resistance. The resistance bands take the user to a new level by giving strength and endurance, as well as flexibility.

The device and method described above stretches the chest muscles, tightens the mid back muscles, lifts the chest and pulls the shoulders up and back. The result is improved posture. By straightening the posture, the head is balanced over the shoulders, as it should be and thereby taking all the aggravating stress of the neck and upper back muscles away from the person.

Those of ordinary skill in the art will recognize that the embodiments just described merely illustrate the principles of the present invention. Many modifications may be made thereto without departing from the spirit and scope of the invention as set forth in the following claims.